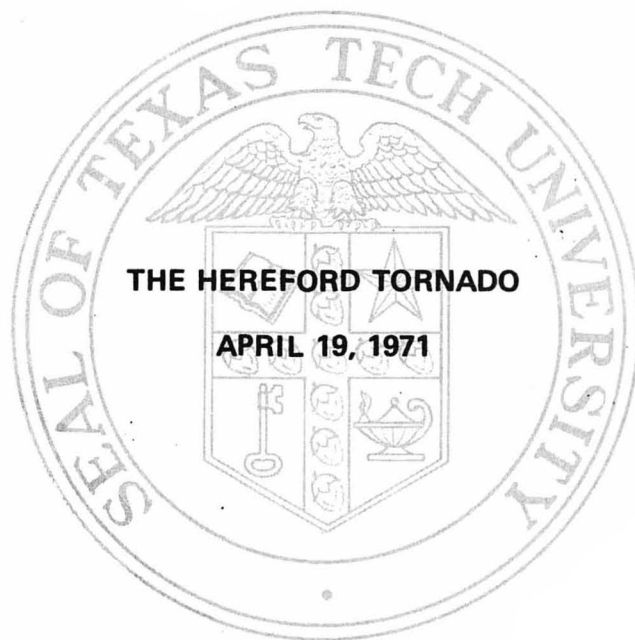


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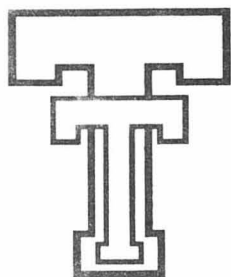


**THE HEREFORD TORNADO**

**APRIL 19, 1971**

by

**James R. McDonald**



# Texas Tech University

LUBBOCK, TEXAS 79409

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TEXAS TECH UNIVERSITY

Lubbock, Texas

## FOREWORD

This report was prepared in the Department of Civil Engineering as a part of a continuing program for studying the effects of disaster on technological, economic, political, and social systems. The Hereford Tornado did not receive an official declaration as a major disaster, yet many of the townspeople and the city itself experienced personal and community catastrophies.

The report emphasizes the meteorological and structural response aspects of the disaster. Thus, the objective is principally documentary.

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## I. INTRODUCTION

At approximately 12:40 A.M. on Monday, April 19, 1971, a tornado slammed into the southeastern side of Hereford, Texas. The storm traveled in a northerly direction and left a path of destruction 200 feet wide and approximately 7 miles long. Twenty residences were destroyed along with six mobile homes and several commercial buildings. In addition numerous residences sustained minor roof and window damage. Damage estimates by local authorities ranged up to \$2.5 million.'

No one was killed in the storm. Twenty persons were reported injured, none seriously. Only three persons were admitted to Deaf Smith County Hospital for treatment of injuries sustained in the tornado.

Hereford is a city of 12,000 population located 100 miles north-northwest of Lubbock and 40 miles southwest of Amarillo. It is the county seat of Deaf Smith County. Figure 1 shows the general location of the panhandle city.

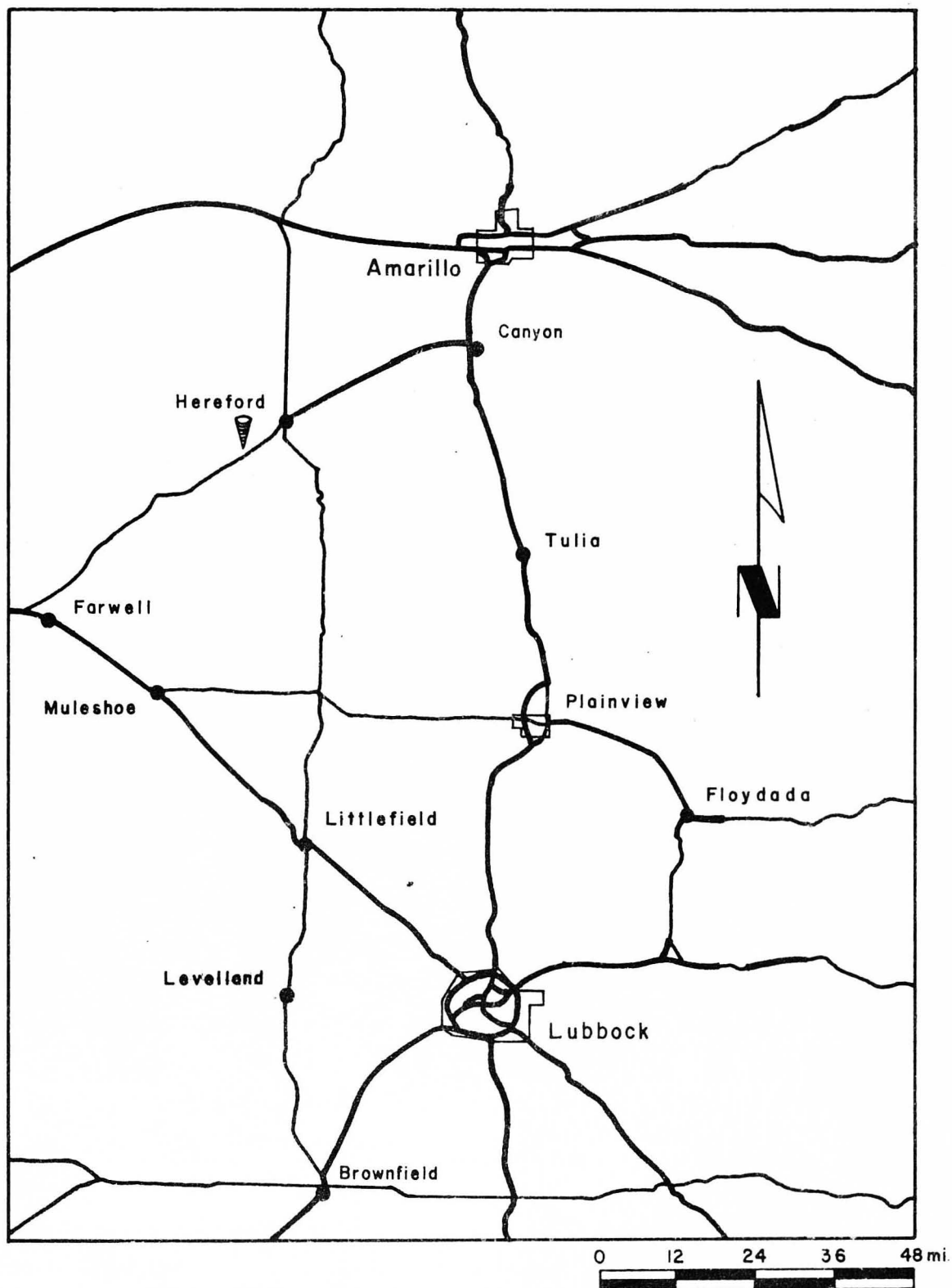


FIGURE 1. MAP OF PANHANDLE SHOWING LOCATION OF  
HEREFORD, TEXAS

## II. WEATHER CONDITIONS

The Hereford tornado was part of a long line of storms which stretched from Lamar, Colorado, to near Odessa, Texas. These storms started sweeping eastward and northeastward on Sunday evening, April 18. Other tornado funnels were reported at Muleshoe, 60 miles southwest of Hereford. There was speculation that one of these funnels may have been the same one which struck Hereford. The tornado which struck Hereford continued on a northerly path toward Amarillo, but outside of Hereford no severe damage was reported along this path.

### III. PATH OF THE STORM

The Hereford area was under a severe weather alert Sunday night, but the alert was cancelled at 11:00 P.M. About midnight golfball-sized hail began falling near Farwell from a storm cell that was moving along U.S. 60 toward Hereford. The funnel cloud was first spotted 4 miles southwest of town near the old Prisoner of War Camp.

Deputy Sheriff Travis McPherson saw the tornado touch down moments later in the vicinity of U.S. 385 on the southeastern edge of Hereford. McPherson described the funnel cloud as being large at the top and tapered toward the bottom. He estimated it to be 100 feet off the ground. The cloud itself was white, not black as is usually the case.

The tornado first hit 1 mile south of Hereford, near Ward Gin. The path followed a south-to-north track cutting a one-block-wide swath through the eastern edge of town (See Fig. 2). It destroyed homes and buildings as it moved one block northward. The twister then swerved slightly to the northwest, moving houses off their foundations and disintegrating small buildings on McKinely Street. At McKinely and Austin Road a mobile home was crumpled by the force of the wind.

A half-mile to the north the twister smashed into a produce shed, empty rail cars, and the Crowe-Gulde Cement Company. After crossing U.S. 60 it struck the bus terminal, La Palata Beauty School, and a used car lot. It just missed Deaf Smith County Hospital. The tornado next cut across Park Avenue and on to Star Street causing heavy damage to several houses in this location. On the 200 block of Star the twister threw debris onto streets, houses, and alleys while continuing its demolition. At Star and Grand Avenue a house lost its roof, wall, and out-buildings. A camper was overturned while a family was sleeping inside. They were uninjured.

As the tornado headed toward 13th Street, it moved slightly eastward to unroof houses on Avenue K and wipe out backyard fences in the alley between Avenue K and Star Street.

From 14th to 15th Street the storm caused damage to houses on both Star and Avenue K. It barely missed Ackman Elementary School. Some of the heaviest damage to houses occurred near 15th and Avenue K.

The storm path extended several miles beyond 15th Street in a due north direction. A sign company, combines, mobile homes, and other structures were destroyed.



#### IV. DAMAGE SURVEY

An investigating team consisting of James R. McDonald and Jerry Traylor from the Civil Engineering Department at Texas Tech University visited Hereford on Tuesday, April 20, to make a survey of the damage. After a general tour through the city to determine the path of the storm, the team made a block-by-block investigation of the storm damage.

The purpose of the investigation was to determine the extent of damage by identifying the path of the storm and classifying the severity of the damage. The cause of the damage from the point of view of high wind velocity, differential pressure, or missiles was studied. Individual structures which either failed or survived were also studied. The photo log in Appendix A of this report gives details of individual structures which were examined.

The severity of this tornado was not comparable to the one which hit Lubbock on May 11, 1970. The wind velocities were not nearly so large and the area of damage was much smaller. The tornado funnel was probably not on the ground for more than the first mile of the path. From this point on the tip of the funnel was probably above roof top level.

Several classifications of structures are now discussed in detail. These include: (1) residences, (2) mobile homes, (3) commercial buildings, and (4) automobiles.

##### Residences

Several residences were destroyed near the south end of the storm path. The house shown in photo H02\* gives the appearance of having exploded due to differential pressure drop. The east and north walls have collapsed outward and the roof has blown away. The south wall, which faces the windward side, would not be expected to blow outward.

A number of older residences were blown off their foundations. In all cases observed (photos H03, H06, and H09) the houses were simply resting on concrete blocks with no anchorage to the foundation.

A number of houses on Star Street and Avenue K lost their roofs. There was some evidence of uplift on the ceilings in these houses (photos H19 and H20). Since ventilation in a residence can occur very rapidly

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\*Photo numbers refer to specific photographs described in the photo log and presented in Appendix A.

and, thus, can relieve any differential pressure, evidence which tends to support differential pressure as a cause can also be interpreted in another way. Wind rushing through the house after the roof or windows have blown away could have caused the lifted ceilings.

#### Mobile Homes

A number of mobile homes were destroyed in the storm. In photos H03 and H04 wreckage of a mobile home which was carried more than 150 feet by the storm is shown.

Two mobile homes occupied the locations shown in photo H05. Both trailers were blown by the storm until they rested against the house in the background. Wreckage of the trailers had been removed before the photo was taken.

The trailer shown in photo H08 is located two and one-half blocks south of Austin Road and Avenue K. The trailer was in the direct path of the storm or very near to it. An adjacent garage and storeroom were destroyed, yet the trailer was unhurt. The reason for this almost miraculous survival is shown in photo H07. Attached to each corner of the trailer was an anchor assembly consisting of an auger type anchor screwed into the ground approximately 5 feet and attached to a small turnbuckle which was, in turn, fastened to the frame of the trailer. There is no question that this anchorage saved the trailer from destruction.

A small trailer park on the west side of McKinley Street near the anchored trailer received some damage. Four of the trailers were apparently shielded from the wind forces by the trees in the park. One trailer which was not protected by the trees was completely destroyed. None of the trailers in the park was anchored.

Several mobile homes were destroyed in a trailer park located about 2 miles north of 15th Street on Avenue K near the end of the storm path. Photo H23 shows one trailer which was completely destroyed.

#### Commercial Buildings

- Crowe-Gulde Cement Company

The path of the storm passed right over this installation. Several concrete block out-buildings were destroyed. The batch plant received only superficial damage (See photo H14).

- La Palata Beauty School

The plate glass front of the building was destroyed and the roof blew off. The roof was inadequately anchored. The steel roof beams

had wood nailers attached to their top flanges as shown in photo H11. The 2 x 8 wooden rafters were then toe-nailed to the nailers. The combined effects of differential pressure and uplift forces removed the roof from the premises.

- Bus Station

In this case the roof and especially the canopy at the front of the building were adequately anchored. The plate glass windows of the south wall (See photo H12) were broken; wind rushed through the building and pushed the concrete block wall at the north end outward. The clock inside the building was stopped at 12:50 A.M.

- Miller's Used Car Lot

The used car lot on the north side of U.S. 60 received extensive damage. A canopy was destroyed. Debris from the canopy had been removed before the inspection team arrived, so no comments can be made concerning its construction or behavior.

A large number of cars on the lot had window and windshield damage. In almost every case the side windows facing west were cracked into numerous small pieces. Photo H16 shows an example of this. Photo H15 shows two cars which also experienced this phenomenon. The remaining glass had been removed by the lot owner before the picture was taken. One could suggest that this glass breakage was due to differential pressure, but some question remains unanswered. Why would the side vent window also undergo this cracking? Since it is smaller, would it not be harder to break?

The wind velocity was not sufficient to make any of the cars airborne. Photo H17 shows a piece of roofing material wedged behind the side molding of the car. It was wedged so tight that it could not be pulled out by hand.

### Missile Damage

One photograph in the Hereford Brand showed an automobile pierced by a 4 x 4 wooden timber at least 12 feet long. This board would meet one of the missile classifications for the design of nuclear reactors to resist tornados. The velocity of the timber was sufficient to cause it to pierce the hood of the car.



## V. CONCLUSIONS

The Hereford Storm was a classical tornado. It had a relatively narrow path which was unusually straight. It traveled in a true south to north direction which is also unusual. The funnel was probably not on the ground after crossing U.S. 60, but traveled at roof top height. No damage was observed that would indicate winds of more than about 120 miles per hour. Based on newspaper accounts, the 7 mile path took approximately 10 minutes, which would make the translational speed of the tornado about 40 miles per hour.

The fact that the anchored mobile home survived a direct hit by the tornado emphasizes the need for anchoring these types of dwellings. Wind velocities well below those which occur in tornados frequently cause damage to mobile homes.

The inspection team was impressed by how rapidly the debris from this tornado was cleaned up. Thirty-six hours after the storm all streets were clear, most power lines had been replaced, and except for repairs to damaged structures, life was almost back to normal.

A certain amount of evidence exists which supports the theory that differential pressure on the walls and roofs of structures caused by an ambient pressure drop is a component of the damaging mechanism. Nonetheless, the action of wind forces acting directly on the structure, or indirectly in the creation of uplift forces on ceilings and roofs, appears to be the principal damaging mechanism.

APPENDIX A  
HEREFORD TORNADO PHOTO LOG

## HEREFORD TORNADO PHOTO LOG

April 20, 1971

An inspection team of James R. McDonald and Jerry Traylor of the Civil Engineering Department at Texas Tech University visited Hereford on Tuesday, April 20, approximately 36 hours after the storm struck.

### Photo Number H01\*

This is a view looking north along the path of the storm. The residence shown in the foreground has lost its roof. Several out-buildings in back were destroyed. This was the first house to be damaged after the tornado touched down.

### Photo Number H02

A view looking toward the southwest. The frame residence gives the appearance of having exploded. The north and east walls have collapsed outward and the roof is not to be found on the premises. The south (windward) wall remains standing, but is leaning toward the north.

### Photo Number H03

A view looking to the northeast. A partially completed house stood where only the foundation blocks remain. The house was not anchored to the ground. A part of the subfloor can be seen at the extreme left of the photo. The walls and roof of the house are scattered in the field beyond.

A 10 x 60 foot mobile home was parked just south of the house at the extreme right in the photo. The storm blew this trailer more than 150 feet northward to a position beyond the white station wagon in the photo.

### Photo Number H04

This photo shows the wreckage of the mobile home described above. It is not known what happened to the car.

### Photo Number H05

This location is 500 yards from where the funnel first touched down. The view is looking northeast. Two mobile homes were parked between the tree and the house in the background. The owner of the house said that both trailers were blown against his house. The wreckage of the two trailers has already been removed. A man and his wife were asleep in one of the trailers when the storm hit. They were only slightly injured. The house has lost its roof but was otherwise not seriously damaged.

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\*Photo numbers appear within the photographs.

Trees in this area were more severely damaged than in locations further down the storm path, indicating that the funnel was closer to the ground along here.

Photo Number H06

This house had just recently been moved to this location. It was resting on the concrete blocks before the storm. There was no anchorage. In fact, the blocks have no mortar to hold them together.

Photo Number H07

This view shows a closeup of the anchors located at each corner of this mobile home. The anchor assembly consists of an auger type anchor which has been screwed into the ground approximately 5 feet. A turn buckle attaches to the anchor and is fastened to the frame of the trailer.

Photo Number H08

A view looking northeast at the trailer mentioned in photo H07. The trailer is located two and one-half blocks south of Austin Road on Avenue K. It was in the direct path of the storm, but sustained very little damage. A garage located just north of the trailer was destroyed and a small storage shed which can be seen in the background was blown 100 feet. There is no question that the anchors saved this mobile home from destruction.

Photo Number H09

A view looking east showing a small storage shed which has been blown off its foundation in the foreground. The shed was very well constructed, although not anchored to the ground. The anchored trailer appears in the background.

Photo Number H10

A view looking northwest at a small trailer park on McKinley Street about two and one-half blocks south of Austin Road. Four of the five trailers received very little damage, although none were anchored. A fifth trailer seen at the extreme right of the picture was completely destroyed. It is not entirely clear why four were spared and one was destroyed in this case. The trees in the park must have provided some shelter. The path of the storm was veering slightly northwest at this point and could have reached out and hit the one trailer.

Photo Number H11

An interior view of the La Palata Beauty School looking southwest. The building is located on the north side of U.S. 60 and was directly in

the path of the storm. The plate glass front of the building was also destroyed, but the debris had already been cleared away.

Wooden nailers were attached to the top flange of the roof beams shown. Two-by-eight wooden joists were toe-nailed to the nailers and the roof sheathing was attached to the rafters. This system obviously did not provide sufficient anchorage and the roof blew away.

Photo Number H12

This view shows the south (windward) elevation of the bus station. The roof and canopy were sufficiently anchored. The plate glass windows were broken and wind rushed into the building causing the north wall to collapse.

Photo Number H13

A view of the bus station showing where the north wall has already been replaced.

Photo Number H14

A view looking northeast at the Crowe-Gulde Concrete Plant. Several small concrete block buildings were destroyed, but the batch plant sustained only minor superficial damage.

There were no buildings, fences, etc., for about one-half mile south of the railroad tracks. The tornado may have lifted into the air as it traveled from Austin Road to the Santa Fe tracks, but it was hard to decide since nothing was damaged. The Crowe-Gulde plant is on the south side of U.S. 60.

The newspapers reported some overturned empty box cars on the Santa Fe tracks at this location, but they had been removed by the time the investigating team arrived.

Photo Number H15

A view of Miller's Used Car Lot looking northeast. The lot is located on the north side of U.S. 60 directly across from the Crowe-Gulde plant. A canopy covered the autos shown in the picture. It was blown away and destroyed. So much of it was removed that it was impossible to determine its response.

The autos on the lot received considerable damage to windows and finish due to blowing gravel from the concrete plant across the street.

Almost every auto had the window glass on the side facing west broken into numerous small pieces. This phenomenon also occurred on the east

side in some instances, but the west side was predominant. This cracking of the glass may have been due to a differential pressure drop as the tornado passed over. However, the evidence is not conclusive. For example, the side vent glasses were also broken. It would seem logical that these panes being smaller and reinforced by the smaller window frame would exhibit more strength than the side windows.

Many of the windshields were broken, but this was due to missiles.

Most of the broken glass had been removed from the cars before the inspection team arrived. Wind velocities were not sufficient to cause any of the cars on the Miller lot to become airborne.

Photo Number H16

An auto on the Miller lot showing the pattern of glass breakage. Only the windows on the west side were broken in the pattern shown in the photo.

Photo Number H17

This photo illustrates a phenomenon which makes for a famous "tornado story" as are often given in the newspapers. The roofing felt is jammed between the door and the side molding. It is so tight that it could not be pulled out by hand.

Photo Number H18

A view of a house on the west side of Star Street in the 200 block. The funnel seems to have steered slightly westward in its path at this point to unroof this house and the one adjacent to it.

An attached garage also collapsed.

Photo Number H19

A photo taken on the inside of the house mentioned in photo H18. The roof has blown off of this house, but the ceiling is still intact. The crack between the top of the walls and the ceiling indicates some uplift.

Photo Number H20

A view of the living room of the above mentioned house. The hole in the ceiling came from something hitting it from the top, perhaps after the roof itself had blown away. The debris had been removed from the house, so it was impossible to be sure of what really happened.

The crack between the top of the wall and the ceiling indicates there may have been some uplift.

Photo Number 21

A general view looking north along Avenue K from the alley side north of 15th Street. Note the debris scattered in the open field. The power poles in the photo had been replaced since the storm.

Photo Number H22

A view looking south along the alley between Avenue K and Star Street at 15th Street. A camping trailer has been overturned. It is not known if the trailer has been moved since the storm or if this is the position where it landed.

Photo Number H23

A view looking east at a demolished mobile home. The trailer was parked in a trailer park located at the extreme north end of the tornado path approximately one and one-half miles north of 15th Street and Avenue K. The trailer was not anchored. Two other trailers were destroyed in this park.

A pair of double 10 foot wide trailers, which is probably the trailer park manager's home, was spared. These trailers (not shown in the photo) were attached to a small permanent room addition. These trailers were probably well anchored although it was not possible to see the details.

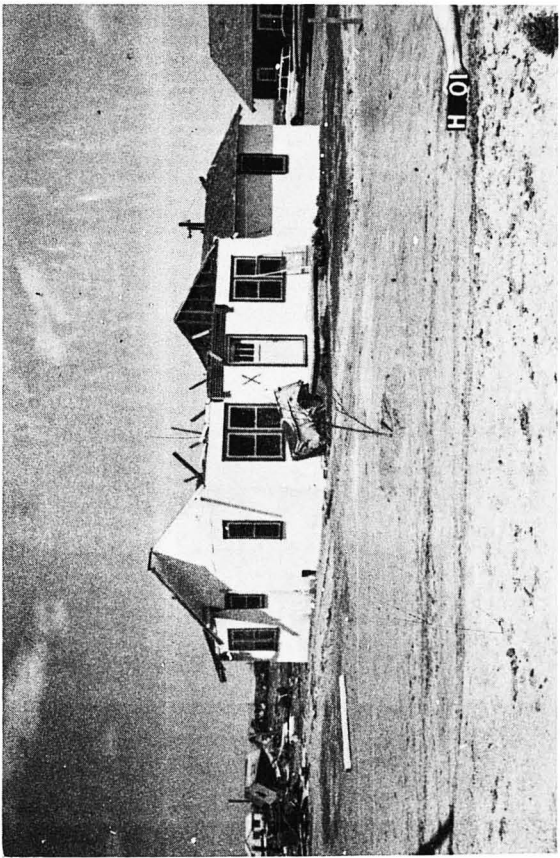
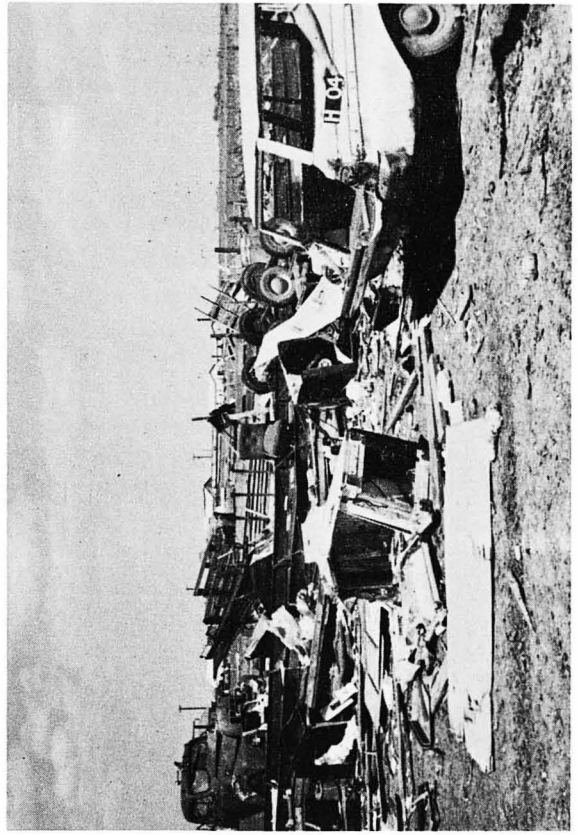
Some Notes and Comments

One preengineered metal building located on Avenue K one mile north of 15th Street appeared to be undamaged although it was likely in the direct path of the storm. A small block building was destroyed and contents of the surrounding construction yard were damaged and scattered.

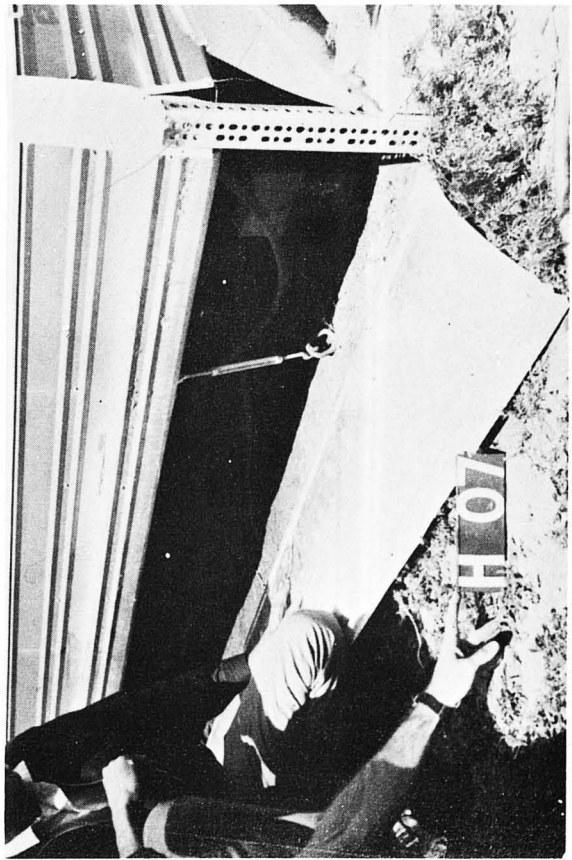
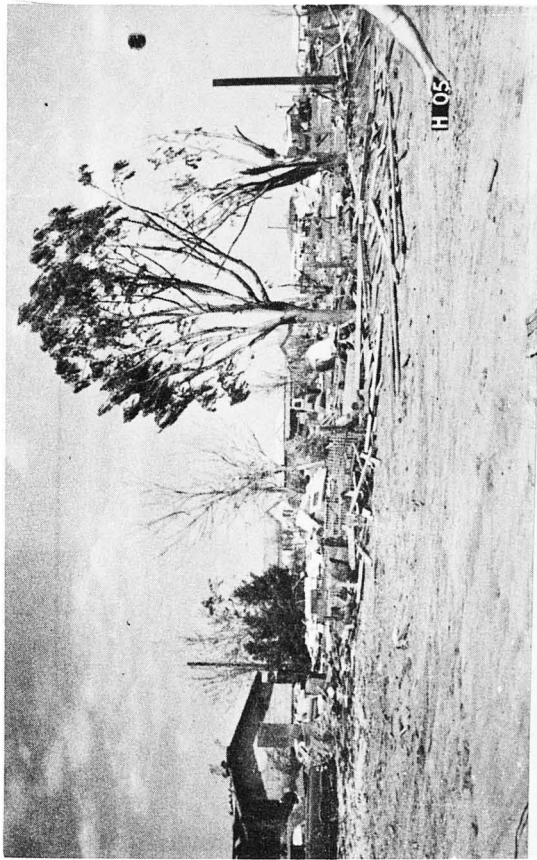
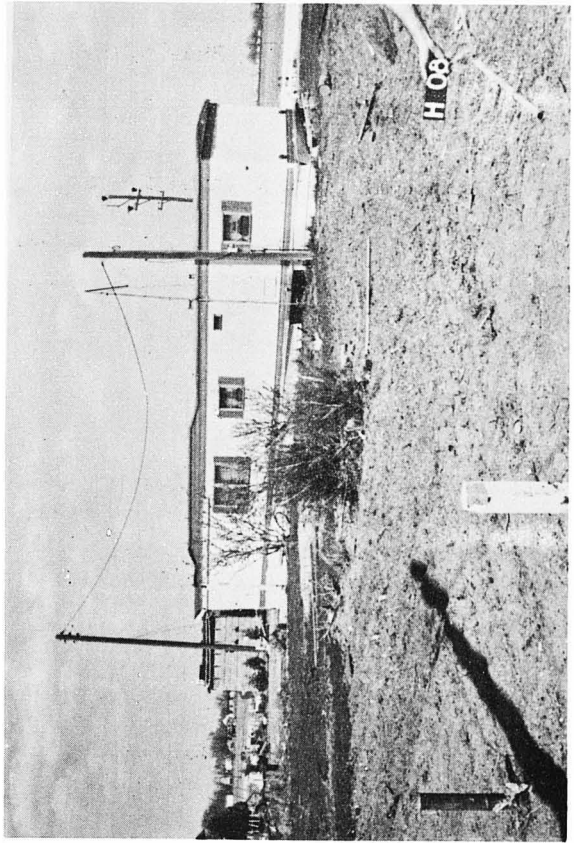
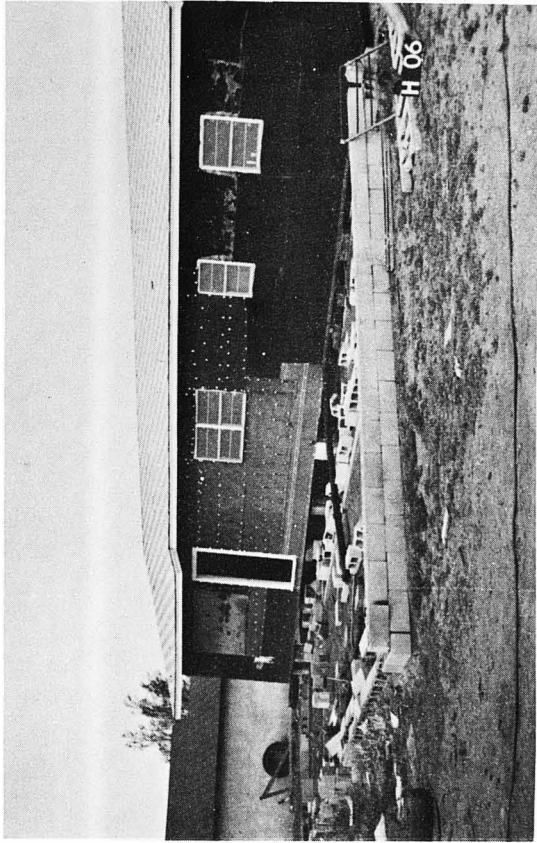
The tornado had a very narrow, well-defined path. The maximum width at any point along the path was no more than 200 feet. The storm traveled in a due north direction.

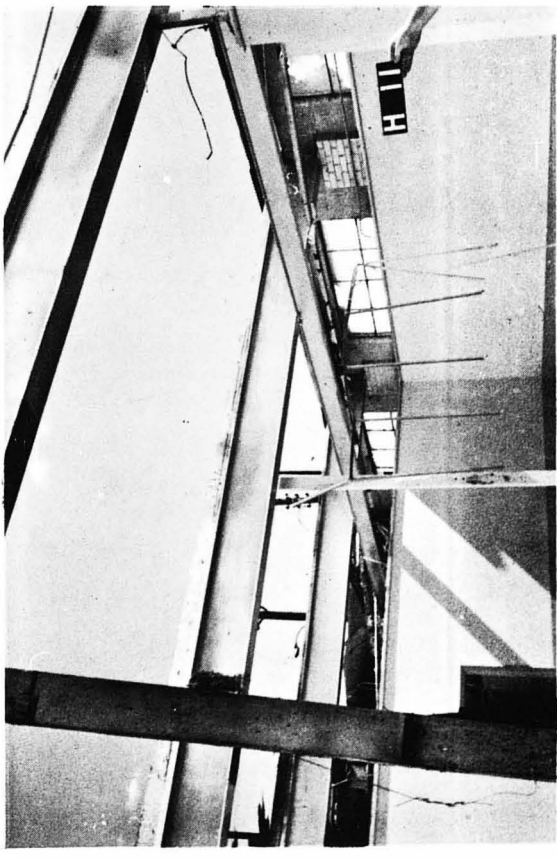
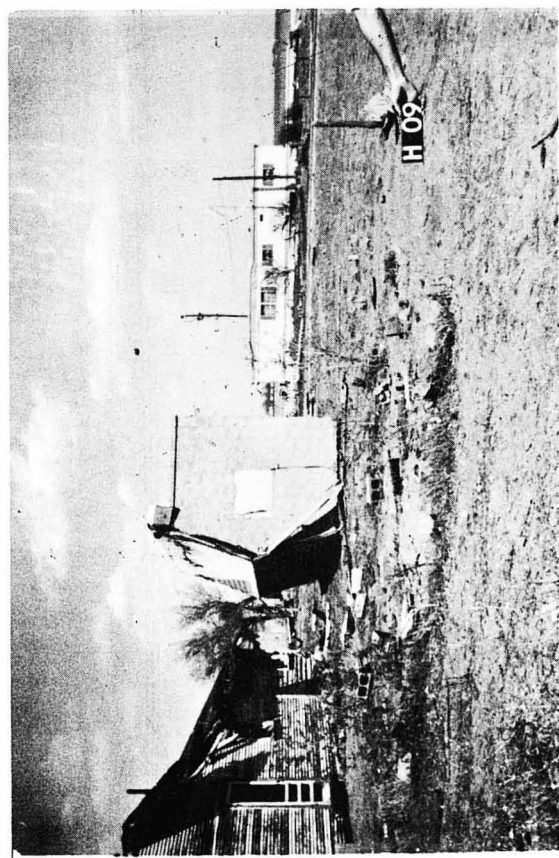
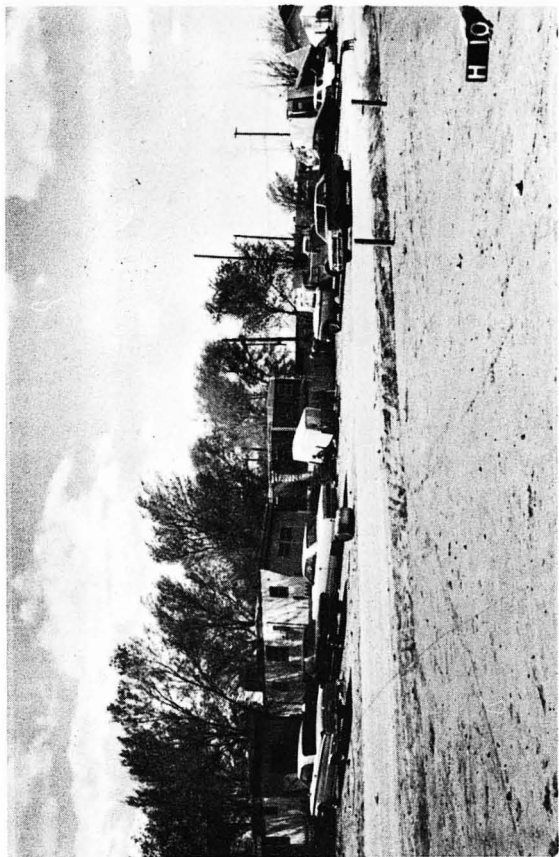
The damage was not as intense as that observed in the Lubbock tornado. Wind velocities were much less than in the Lubbock storm. The majority of the damage was to the roofs of houses. Wind velocities, in this observer's judgement, did not exceed 120 miles per hour.

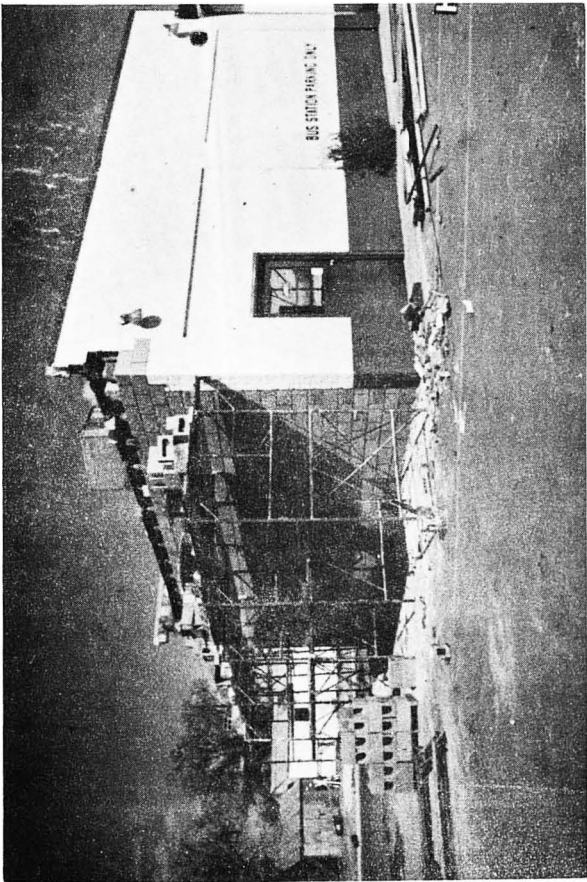
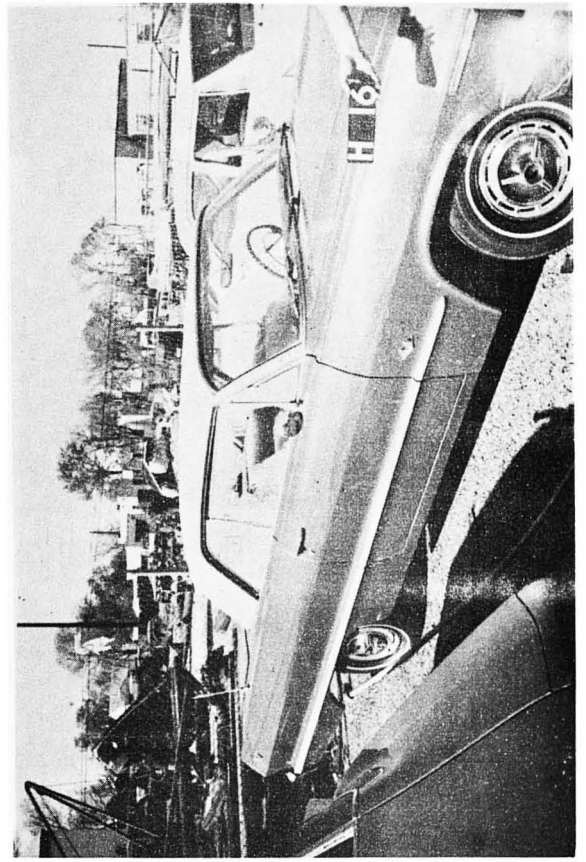
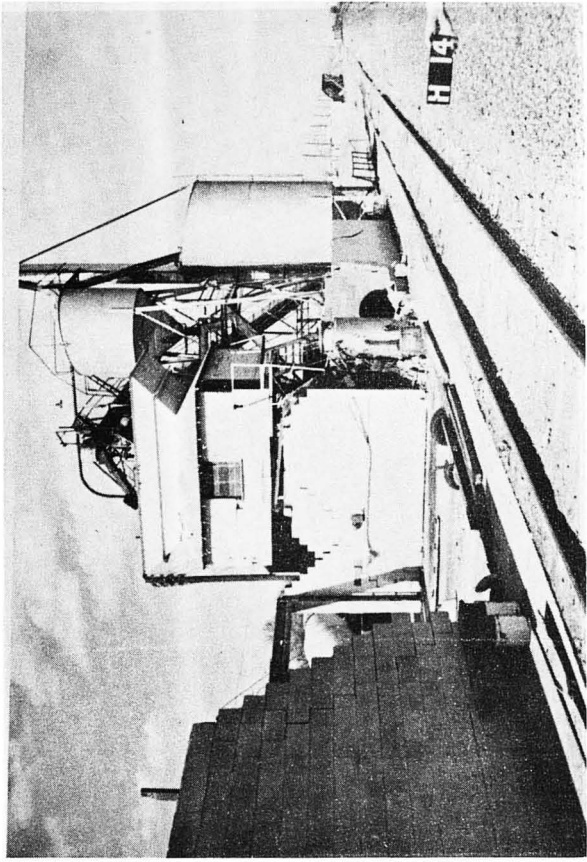




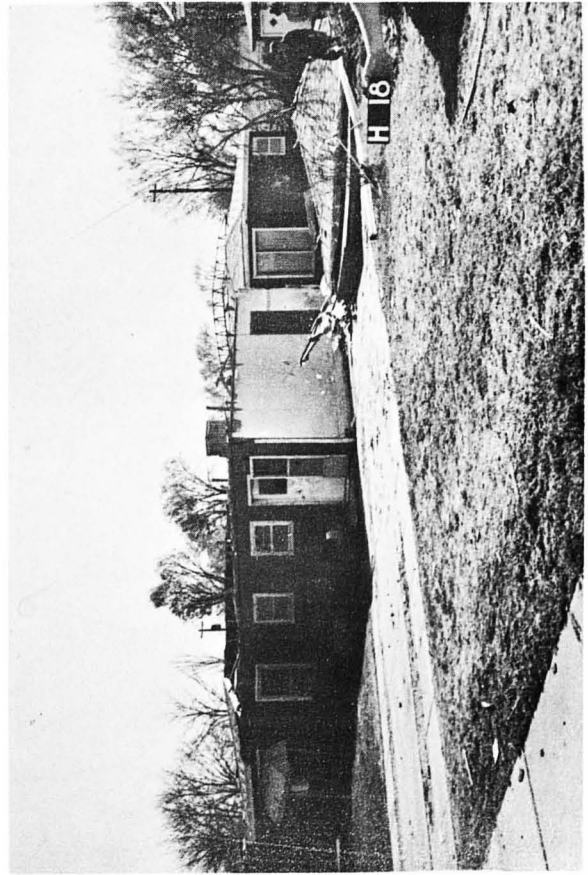
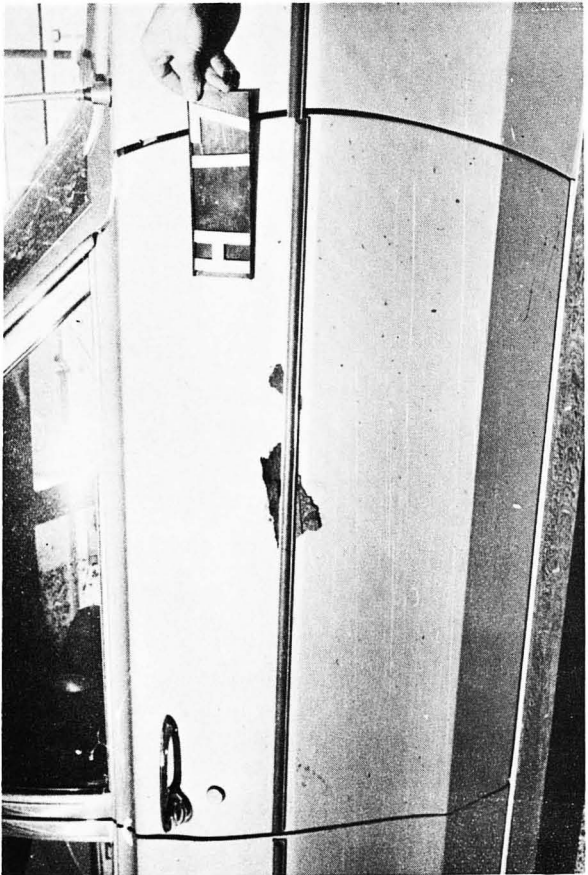
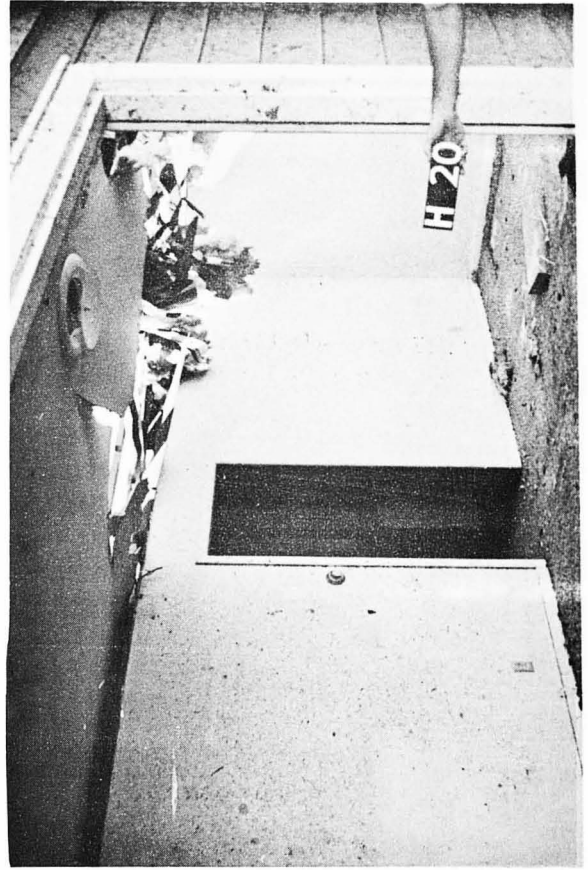
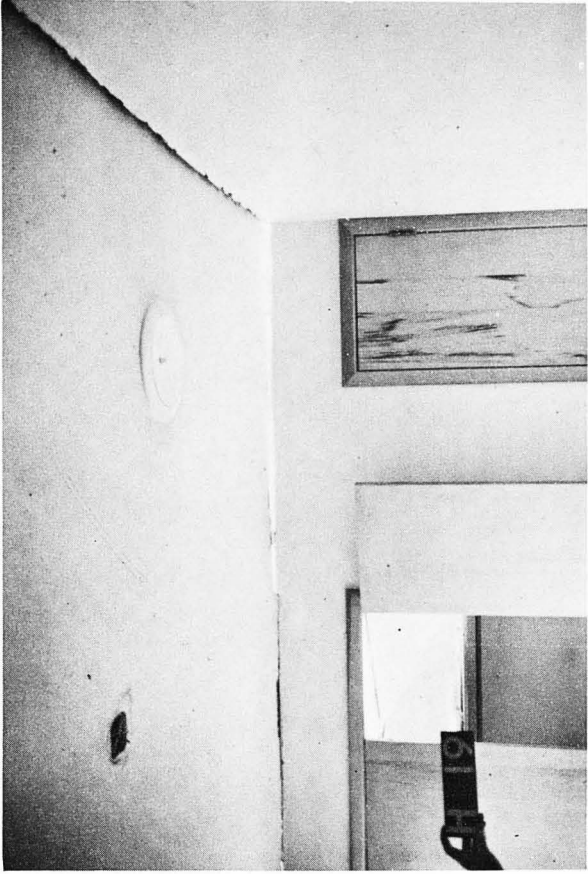


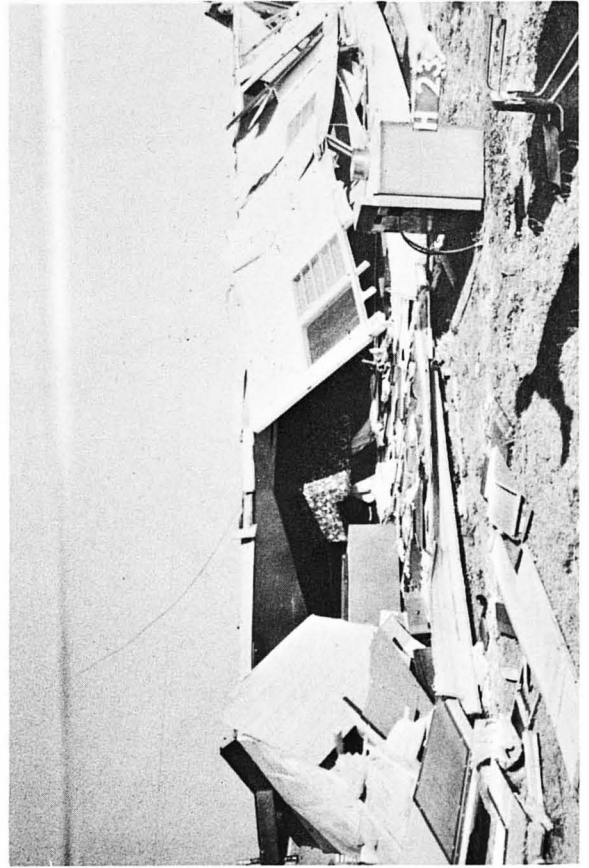
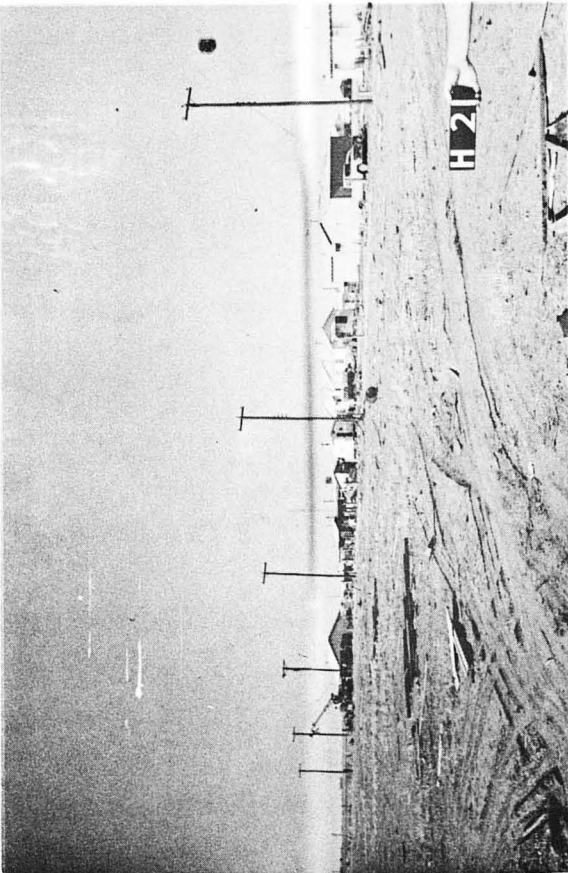
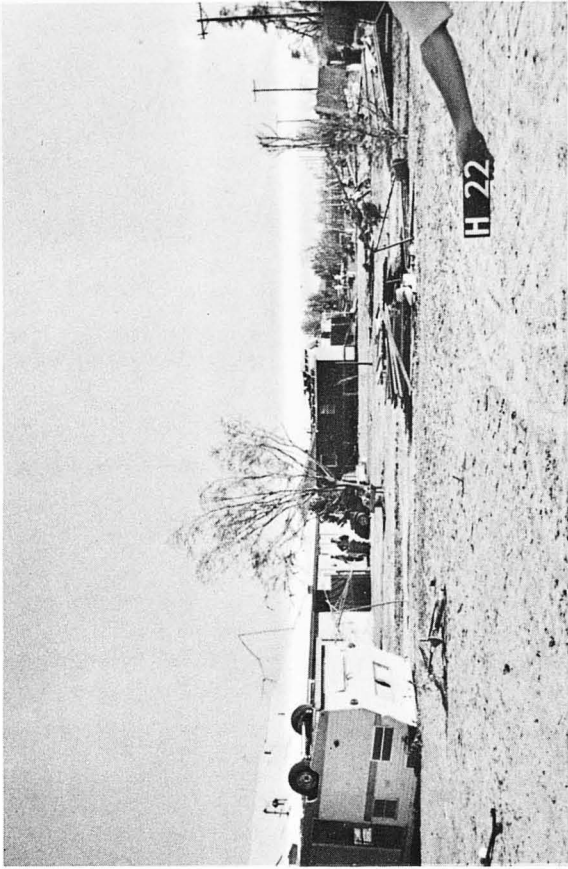












APPENDIX B  
NEWSPAPER ACCOUNTS

# Homes Razed At Hereford

*Damage Heavy; Hail, Rain Rake  
Region; Broad Section Menaced*

By JERRY ODOM  
Avalanche-Journal Staff

A SERIES OF SAVAGE STORMS, including at least one twister which caused damage at Hereford, swept through the Panhandle and South Plains late Sunday night and early today as a wave of violent weather continued for the fourth straight day.

Sketchy reports of the tornadic winds which smashed into Hereford, 95 miles northwest of Lubbock, indicated considerable damage to some residences, mobile homes, power and phone lines and automobiles.

#### Several Injuries Reported; No Deaths

By shortly after 2 a.m., Hereford hospitals were reported accepting persons seeking treatment for injuries ranging from cuts to possible broken bones. No deaths had been reported.

The city of Lubbock was placed under a tornado warning about 1:35 a.m. as the Lubbock Weather Bureau reported the possibility of a twister in clouds about 18 miles southwest of the city after a radar reading.

The alert was canceled at 2:30 a.m., but a new cloud buildup was reported in the area at the time. Up until then, only scattered rain had been reported in parts of the city, although heavy rain and hail struck as close as Shallowater.

#### OEC On Duty

The city's Emergency Operations Center at City Hall was activated late Sunday night and was still in operation at 3 a.m.

As much of the city slept, police, fire and sheriff's units kept watch on the storm to the west.

Inconclusive reports from Hereford at 2 a.m. today indicated as many as 10 blocks may have suffered varying damage, but the heaviest seemed to be limited to a small area.

#### Two Storms Possible

The United Press reported that a sheriff's deputy had received reports that a trailer park in the north part of Hereford had suffered heavy damage. Hereford has a population of near 12,000.

The Hereford storm — and there were indications there may have been two different blows — struck about 12:45 a.m., hitting South Main Street first, Star Street and then Ave-K in the northeast sector of the county city.

Heavy hail and rain accompanied the tornadic winds. Charles Richards, editor of The Hereford Brand, told The Lubbock Avalanche-Journal.

#### Bus Station Hit

Richards at 2 a.m. reported from Hereford that most of the business district apparently escaped any heavy loss although the Greyhound Bus station in the eastern part of the city sustained damage.

"Numerous homes were unroofed," he said, "and debris is scattered everywhere." The homes of City Manager Dudley Bayne and Councilman Earnest Langley suffered considerable roof damage, he said.

An occupant of at least one trailer home saw the twister approaching, attempted to flee but

See NEW STORMS Page 10

## New Storms

### FROM PAGE ONE

was caught in the winds and sustained what appeared to be minor head wounds, Richards reported.

The Hereford twister was part of a huge line of storms which stretched from Lamar, Colo., to near Odessa and which started sweeping eastward and northeast last Sunday night, building in violence by the hour. At 2 a.m., a tornado was reported on the ground 15 miles west of Amarillo and high winds and hail were reported in the storm system west of Lubbock.

## LUBBOCK AVALANCHE JOURNAL

Monday Morning, April 19, 1971 (Cont.)

### Headed Toward Amarillo

In Dimmitt, just south of Hereford, some wind damage was reported. Two other twisters were reported in the general Hereford vicinity but caused no damage.

The tornado which struck Hereford continued on a northern path toward Amarillo. However, sources there early today said no severe damage had been reported. High winds, hail and rain raked the Umbarger area about 30 miles southwest of Amarillo.

### Trailer "Rolled Over"

Eyewitnesses said the Hereford twister "rolled one trailer park home over and over" as it roared through the darkness. Phone lines in parts of the city were out and some sections were in darkness.

Emergency units prowled the streets early today as rescuers sought injured. Emergency units from nearby cities rushed cars to Hereford.

At least six DPS units from Amarillo, three parks and wildlife units and highway patrol units from other points were dispatched. The Lubbock Fire department sent five men, two pickups and a truck.

The turbulence kicked up sand at Plains and dropped hail near Bledsoe but little rain was reported late in the day.

Texas counties included in the storm watch were Bailey, Castro, Cochran, Dalham, Dawson, Deaf Smith, Gaines, Hale, Hartley, Hockley, Lamb, Lubbock, Lynn, Moore, Oldham, Palmer, Potter, Randall, Sherman, Swisher, Terry and Yoakum.

The emergency Operation Center at Lubbock's City Hall was opened after the watch was posted.

Sprinkles from earlier rain clouds were reported at Clovis.

A tornado was reported sighted by an observer about 10 p.m. 20 miles southeast of Clovis moving to the northeast. Police and radar, however, were unable to confirm the funnel cloud.



Monday Evening, April 19, 1971

**FUNNEL DIPS****Damage In  
Muleshoe  
Area High**

**MULESHOE (Special)** — Uprooted trees, twisted wreckage, unroofed homes and outbuildings, and 38 downed electric and telephone poles marked a path of damage and destruction at least 22 miles long this morning in evidence of a tornado which set down 3 miles from Muleshoe and moved northeastward.

The path may be much longer, because another report of damage was received from the community of Flagg in Castro County — still on the same northeasterly course.

As reports began to pour into Muleshoe after midnight and this morning that a tornado had cut a path in Bailey County, Radio Station KMUL and the Muleshoe Journal did extensive surveys which revealed at least 25 farm homes damaged or destroyed. Apparently, only two persons were injured.

**First Damage Located**

The first damage was located on the R. O. Gregory farm 3 miles northeast of Muleshoe, where the storm touched down a few minutes before midnight Sunday. Mrs. Cleta Williams, news editor of the Muleshoe Journal and Bailey County Journal, followed the path of damage, which she described as 2 to 6 miles in width. Destruction ranged "from light damage to total destruction," she said.

She said she talked to no one who had seen the funnel but heard several descriptions of a loud roar accompanying the storm. One

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person described it as "a big, loud noise" and went on to say it was like a "a great big train." Others, too, referred to it as resembling the sound of a train.

At times, she said, she would have to move over about two miles in order to pick up the path again, indicating the tornado had lifted back off the ground and moved down again.

**Same Tornado Maybe**

The storm moved through YL and Lazbuddie communities. The northeasterly path on which it was moving would have taken it to Hereford and local residents raised a question of whether it was the same tornado that struck Hereford.

One of the two persons injured in the storm was rescued by the parents of the other storm victim.

Mrs. Hattie May, 68, of Muleshoe Rt. 1, was injured as she was driving about 2 miles south of Lazbuddie during the storm. One account was that her car was blown from the highway. Driving rain was occurring at the time.

As Mrs. May was helpless beside the highway, a family en route to West Plains Memorial Hospital in Muleshoe with their injured child saw her and stopped to take her to the hospital with them, said Radio Station KMUL.

The child injured is Gerald Mendoza, 13-month-old son of Mr. and Mrs. Paul Mendoza. He had extensive lacerations on top of his head and on his forehead.

**Fractured Ankle**

Mrs. May had a fractured ankle, chest injury and facial bruises.

The Mendoza child was injured when the family's trailer house was rolled and twisted and split in half. The Muleshoe Journal and Bailey County Journal news editor said the split trailer house dumped into a field.

While Mrs. May was being injured in the storm, her house was being moved about two feet off its founda-

tion and a plate glass window in her living room was being shattered. The home is located about 5 miles north and 1½ miles northeast of Muleshoe.

From the Gregory farm where the first damage was located, the storm moved to the Butch Vandiver farm 3 miles north and 1½ miles east of Muleshoe.

Vandiver said it was approximately midnight when the shop roof in his yard was blown off. He located it this morning about ½ mile away. The sides of the shop also were damaged. Four telephone poles were snapped in front of his home. He said he measured ½ inch of rain at his home.

**Seven Houses Damaged**

About six or seven houses in the community of YL, about 10 miles northeast of Muleshoe, had damage of varying types — including house and garage roofs removed and damage to a trailer.

About 2 miles west of Lazbuddie, the home of Mrs. Larua Treider was damaged extensively and Mrs. Treider was found this morning. She apparently was not injured. "I am 85 years old and nothing like this ever happened to me before," she said.

Approximately 40 men of the neighborhood were repairing her home this morning. Her house was unroofed, barns and other outbuildings were damaged or blown away, and trees were broken. She was found this morning by Bailey County Electric Cooperative Workers.

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At the Marvin Mimms farm a short distance northeast of Mrs. Treider's home, trees were uprooted, fences, haystacks and television antenna were blown down, and electric lines were damaged. The house was not damaged.

Mimms was in the cellar when the damage occurred. He said he could hear the loud roar of the storm.

KMUL received a report the damage path was picked up in Castro County, where the James Collins trailer was damaged 5 miles west of Flagg community, which is located at the intersection of Farm Roads 1524 and 1055 southwest of Dimmitt.

# Power, Phone Service Cut

*At Least 20 Persons Reported Injured By Unusual Twister*

By JERRY ODOM  
Avalanche-Journal Staff

HEREFORD—Civil Defense officials here are seeking assistance from their counterparts in Austin in an attempt to ascertain if Hereford qualifies as a disaster area.

A white tornado ranged through seven miles of this West Texas city early today, leaving in its path the homeless, the injured, an estimated \$2½ million in damages, and miraculously—no one dead.

If the city is declared a disaster area, officials said, then the pathway will be cleared for victims whose homes were destroyed to apply for loans from the Small Business Administration.

Communication with the city has been difficult as the storm severed lines to more than 500 telephones. A phone company spokesman said the destroyed cables would be replaced by lines underground.

Power was being restored at 1 p.m. today to many residences and businesses and two of the hardest hit streets were cleared for traffic.

Damage estimates early today had been set at under \$2 million but as investigation continued, the figure was increased.

The funnel cloud developed about 12:30 a.m. some five miles southwest of here, near a World War II prisoner of war camp. It then moved northward straight at the southeastern and northern sections of Hereford.

About 8 a.m., Civil Defense director Bill Thompson and other city officials compiled a damage estimate of \$1,815,400.

Hereford citizens were alerted at 12:40 a.m., after Sheriff Travis McPherson confirmed the twister was bouncing toward the city.

"It was a white funnel cloud and never did turn black. It bounced several hundred yards, jumped completely over some high line wires and then came down and smashed tin buildings," the sheriff said.

Sheriff McPherson said "I believe that if it would have stayed on the ground it would have wiped out an entire city block."

Law enforcement officials, firemen units and other officials from surrounding towns as far south as Lubbock rushed to Hereford after Thompson issued the call for outside assistance.

## Homes Destroyed

A twister first destroyed homes and other structures in extreme south Hereford. It destroyed several mobile homes, whose occupants were asleep at the time.

"A man and his family were in their trailer home. The next thing the man knew, he was being tossed about in the trailer. I don't see how they got out alive," according to the sheriff.

The tornado moved north-northeastward, crossing U. S. Hwy. 60 where it smashed the Crowe-Guild Cement Company, the bus depot, a beauty salon and an auto repair shop, all within 500 feet of each other.

A wall clock in the bus depot was stopped at 12:50 a.m.

In this area, windows were blown out, high lines were down, telephone poles were dented and glass, trees, tin, wire, trash and other objects littered the street.

Officials here first realized the danger of looters soon on the prowl after the storm, and officers quickly had all areas blocked off.

Twenty persons were reported injured, none of whom were in critical condition. Five of the injured were admitted to Deaf Smith County Hospital.

McPherson, who was at the intersection on the southeast edge of the city, estimated that 50 law enforcement officers arrived here after the call for help was issued.

"I got to the fire station with

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Monday Evening, April 19, 1971 (Cont.)

# Tornado Smashes Into Hereford; 20 Injured

## FROM PAGE ONE

my family about 1 a.m.," reported J. C. (Jay) Spain, a volunteer fireman here.

Spain was one of the first to reach the crippled southeastern section, where he described the damage as "a pile of tin, twisted up."

"We started trying to get in a trailer house that was bashed. We got to the bed and found that no one was in there. We've been damn lucky, that's all I can say," Spain said.

The fireman reported that they had accounted for almost everyone in the devastated residential section along Avenue K and Star Street.

### Praise Utility Firms

"But I dread it though, when it gets daylight. We might find someone. You can't ever tell," Spain said.

He praised the gas company and utility companies here for immediately repairing downed lines and trying to keep fires from breaking out.

"We haven't had fire one," Spain said.

Two electric companies here, Southwestern Public Service, and Deaf Smith County Electric Co-Operative, pressed into service all their employees during the pre-dawn hours.

Most of the city electric power units which malfunctioned were back in operation within four hours after the storm hit.

The homeless victims were offered food and shelter at the La Plata Junior High gymnasium here. At one point 45 persons were reported there, according to Joe Kerbel, a junior high coach and science instructor.

Only 22, however, remained by 8 a.m., and later in the morning one Mexican-American family was the only occupant at the emergency shelter.

Foodway Grocery Store was opened for relief workers and disaster victims who needed food today.

### Hospital Missed

The twister, which missed the hospital by one block, continued northward, ripping up the telephone lines and poles outside the city limits.

Six mobile homes were demolished at a trailer park one and one-half miles north of here. Occupants of the homes were not severely injured.

A family of four, living in one of the houses, was thrown out as the twister lifted the structure and tossed it several hundred feet away.

"We were sitting near the window listening," according to Raymond Paetzold, who lives in a brick home at the trailer park.

"But we never heard anything, not even when it hit."

### Barn Demolished

An airport hangar and a barn were also demolished at the site and a combine was tossed on its side.

Hereford attorney Earnest Langley, 1970 man of the year here, also was at home when the disaster struck.

"We had some in-laws staying with us and the storm took the roof right from over their heads while they were sleeping and no one was hurt," the attorney said.

Mrs. Dale Tinnin, who lives on

the same street was in New Mexico when the twister struck.

"I can't imagine it," said the woman whose home was demolished.

"I left this house on Saturday and every thing was perfect. Now it's a mess. It broke all my china and just everything," Mrs. Tinnin said.

### Cleaning Up Starts

The long task of cleaning up the town had started by day-break today. People were picking up debris, tree limbs scattered throughout the city, and other rubble.

Department of Public Safety helicopters hovered over the city throughout the morning surveying the damage.

Most people here had just about recovered from the shock that a twister had finally struck their city which had escaped such disaster scores of times before.

Public and parochial schools were closed mainly because of a power shortage.

Churches, civic groups and other organizations were helping with the recovery operation.

Thompson, some three hours before dawn, reported that the Seventh Day Adventist church had already combined forces to bring in food and clothing to the emergency relief center at the junior high school.

The civil defense center is set up in the courthouse in downtown Hereford.